

Listing of the Claims:

1-220. (Canceled)

221. (Currently Amended): An isolated oligoribonucleotide consisting of;
two separate complementary strands (dsRNA) and a 3' overhang,
wherein the dsRNA is not more than 49 nucleotides in length,
wherein the dsRNA does not comprise a full length RNA transcript of a
mammalian target gene,
wherein one strand of the dsRNA is complementary to less than the full length of
an RNA transcript of said mammalian target gene,
and wherein the oligoribonucleotide specifically inhibits the expression of said
mammalian target gene ~~two separate RNA strands, a self-complementary double stranded~~
~~structure, (dsRNA), and a 3' overhang, said double stranded structure being~~
~~complementary to less than the full length of an RNA transcript of a mammalian target~~
~~gene, and not comprising a full length RNA transcript of said mammalian target gene,~~
~~wherein the structure is not more than 49 nucleotides in length, and wherein the~~
~~oligoribonucleotide specifically inhibits the expression of said target gene.~~

222. (Previously Presented): The oligoribonucleotide of claim 221, wherein said dsRNA consists of a length of between 15 and 49 nucleotides.

223. (Previously Presented): The oligoribonucleotide of claim 221 and 224, wherein the RNA transcript is a primary or a processed RNA.

224. (Currently Amended): An isolated oligoribonucleotide, consisting of;
two RNA strands which are fully complementary to each other (dsRNA), a
linker between the two RNA strands, and a 3' overhang,
wherein the dsRNA is not more than 49 nucleotides in length,
wherein one strand of the dsRNA is fully complementary to an RNA transcript of
a mammalian target gene,
and wherein the oligoribonucleotide specifically inhibits the expression of said
mammalian target gene ~~consisting of a self-complementary double stranded structure~~
~~(dsRNA) consisting of two RNA strands of not more than 49 nucleotides in length,~~

~~wherein the dsRNA comprises a linker between the two strands, wherein the structure is fully complementary to an RNA transcript of a mammalian target gene, wherein the dsRNA comprises a 3' overhang, and wherein the oligoribonucleotide specifically inhibits the expression of the target gene.~~

225. (Previously Presented): The oligoribonucleotide of claim 224, wherein the linker is a polyethylene glycol linker.

226-231. (Canceled).

232. (Currently Amended): An isolated mammalian cell comprising an exogenous oligoribonucleotide,

wherein the oligoribonucleotide consists of:

two separate complementary strands (dsRNA) and a 3' overhang,
wherein one strand of the dsRNA has a region which is complementary to
an RNA transcript of a target gene,

and wherein the oligoribonucleotide specifically inhibits the expression of
said target gene ~~a self-complementary double-stranded structure (dsRNA) consisting of two separate RNA strands, wherein the the dsRNA comprises a 3' overhang wherein one strand of the dsRNA has a region which is complementary to an RNA transcript of a target gene, and where the dsRNA specifically inhibits the expression of said target gene.~~

233. (Previously Presented) The mammalian cell of claim 232, wherein the mammalian cell is a human cell.

234. (Previously Presented): The mammalian cell of claim 232, wherein the dsRNA is not more than 49 nucleotides in length.

235. (Previously Presented): The mammalian cell of claim 232, wherein the dsRNA has a length of between 15 and 49 base pairs.

236. (Previously Presented): The mammalian cell of claim 232 and 237, wherein the RNA transcript is a primary or a processed RNA.

237. (Currently Amended): An isolated mammalian cell comprising an exogenous oligoribonucleotide,

wherein the oligoribonucleotide consists of:

two complementary strands (dsRNA), a 3' overhang and a linker,
wherein one strand of the dsRNA is fully complementary to an RNA
transcript of a target gene,

and wherein the oligoribonucleotide specifically inhibits the expression of
said target gene~~a self-complementary double stranded structure (dsRNA) consisting of~~
~~two RNA strands, wherein the dsRNA comprises a 3' overhang and is fully~~
~~complementary to an RNA transcript of a target gene, wherein the dsRNA comprises a~~
~~linker between the two RNA strands, and wherein the dsRNA specifically inhibits the~~
~~expression of said target gene.~~

238. (Previously Presented): The mammalian cell of claim 237, wherein the linker is a polyethylene glycol linker.

239. (Previously Presented): The oligoribonucleotide of claim 221, wherein oligoribonucleotide is modified so as to be resistant to RNA degradation.

240. (Canceled).

241. (Canceled): The oligoribonucleotide of claim 221, wherein said 3' overhang is a single nucleotide overhang.

242. (Previously Presented): The oligoribonucleotide of claim 241, wherein said dsRNA is 21 nucleotides in length.

243. (Previously Presented): A composition comprising an oligoribonucleotide according to claim 221 and 224.

244. (Currently Amended) The composition of claim 243, further comprising a second oligoribonucleotide, wherein said second oligoribonucleotide differs in sequence from said the oligoribonucleotide of claim 243.

245. (Previously Presented): The mammalian cell of claim 232 and 237, wherein oligoribonucleotide is modified so as to be resistant to RNA degradation.

246. (Canceled).

247. (Previously Presented) The mammalian cell of claim 232 and 237, wherein said 3' overhang is a single nucleotide overhang.

248. (Caanceled).

249. (Currently Amended): The oligoribonucleotide of Claim 221, ~~wherein said double-stranded structure~~ wherein said one strand of said dsRNA is fully complementary to less than the full length of an RNA transcript of a mammalian target gene.

250. (Canceled).

251. (Previously Presented): The oligoribonucleotide of claim 224, wherein said dsRNA consists of two complementary RNA strands of 15 to 49 nucleotides.

252. (Currently Amended): The oligoribonucleotide of claim 221, wherein said one strand of said dsRNA is fully complementary to less than the full length of an RNA transcript of a mammalian target gene ~~An isolated oligoribonucleotide consisting of two separate RNA strands, a double-stranded structure, (dsRNA), and a 3' overhang, said double-stranded structure being fully complementary to less than the full length of an RNA transcript of a mammalian target gene, and not comprising a full length RNA transcript of said mammalian target gene, wherein the structure is not more than 49 nucleotides in length, and wherein the oligoribonucleotide specifically inhibits the expression of said target gene.~~

253. (Previously Presented): The isolated mammalian cell of claim 232, wherein said one strand of the dsRNA is fully complementary to an RNA transcript of a target gene.

254. (Canceled).

255. (New): An isolated oligoribonucleotide consisting of;
two separate complementary strands (dsRNA) and a 3' overhang,
wherein the 3' overhang is a single nucleotide overhang,
wherein the dsRNA is not more than 49 nucleotides in length,
wherein the dsRNA does not comprise a full length RNA transcript of a mammalian target gene,
wherein one strand of the dsRNA is complementary to less than the full length of an RNA transcript of said mammalian target gene,
and wherein the oligoribonucleotide specifically inhibits the expression of said mammalian target gene.

256. (New): An isolated oligoribonucleotide consisting of;

two RNA strands which are fully complementary to each other (dsRNA), a linker between the two RNA strands, and a 3' overhang,
wherein the 3' overhang is a single nucleotide overhang,
wherein the dsRNA is not more than 49 nucleotides in length,
wherein one strand of the dsRNA is fully complementary to an RNA transcript of a mammalian target gene,
and wherein the oligoribonucleotide specifically inhibits the expression of said mammalian target gene.

257. (New): An isolated oligoribonucleotide consisting of;
two separate complementary strands (dsRNA) and a 3' overhang,
wherein the dsRNA is not more than 49 nucleotides in length,
wherein the dsRNA does not comprise a full length RNA transcript of a mammalian target gene,
wherein one strand of the dsRNA is complementary to less than the full length of an RNA transcript of said mammalian target gene,
wherein the oligoribonucleotide specifically inhibits the expression of said mammalian target gene,
and wherein said 3' overhang is generated by RNase digestion of said two separate complementary strands (dsRNA) which have formed an interstrand double stranded structure.

258. (New): An isolated oligoribonucleotide consisting of:
two RNA strands which are fully complementary to each other (dsRNA), a linker between the two RNA strands, and a 3' overhang,
wherein the dsRNA is not more than 49 nucleotides in length,
wherein one strand of the dsRNA is fully complementary to an RNA transcript of a mammalian target gene,
wherein the oligoribonucleotide specifically inhibits the expression of said mammalian target gene,

and wherein said 3' overhang is generated by RNase digestion of said two linked complementary strands (dsRNA) which have formed an interstrand double stranded structure.

259. (New): An isolated oligoribonucleotide consisting of:

two separate complementary strands (dsRNA) and a 3' overhang,
wherein the dsRNA is not more than 49 nucleotides in length,
wherein the dsRNA does not comprise a full length RNA transcript of a
mammalian target gene,

wherein one strand of the dsRNA is complementary to less than the full length of
an RNA transcript of said mammalian target gene,

wherein the oligoribonucleotide specifically inhibits the expression of said
mammalian target gene, and wherein said oligoribonucleotide is synthesized according
to the following method steps:

a. synthesising a first oligoribonucleotide strand (S1) which comprises a
nucleic acid sequence, wherein said nucleic acid sequence is complementary to an
mRNA transcript of the target gene and is not more than 49 nucleotides in length,

b. synthesising a second oligoribonucleotide strand (S2) which comprises
a nucleic acid sequence complementary to S1 and is not more than 49 nucleotides in
length, and

c. annealing said S1 strand to said S2 strand under conditions that allow
the S1 strand and the S2 strand to form an interstrand double stranded structure,

d. using RNase to digest said interstrand double stranded structure
formed in step c.

260. (New) An isolated oligoribonucleotide consisting of:

two RNA strands which are fully complementary to each other (dsRNA), a
linker between the two RNA strands, and a 3' overhang,

wherein the dsRNA is not more than 49 nucleotides in length,

wherein the dsRNA does not comprise a full length RNA transcript of a
mammalian target gene,

wherein one strand of the dsRNA is complementary to less than the full length of an RNA transcript of said mammalian target gene,

wherein the oligoribonucleotide specifically inhibits the expression of said mammalian target gene, and wherein said oligoribonucleotide is synthesized according to the following method steps:

a. synthesising a first oligoribonucleotide strand (S1) which comprises a nucleic acid sequence, wherein said nucleic acid sequence is complementary to an mRNA transcript of the target gene and is not more than 49 nucleotides in length,

b. synthesising a second oligoribonucleotide strand (S2) which comprises a nucleic acid sequence complementary to the S1 and is not more than 49 nucleotides in length,

c. annealing said S1 strand to said S2 strand under conditions that allow the S1 strand and the S2 strand to form an interstrand double stranded structure,

d. using RNase to digest said interstrand double stranded structure formed in step c,

e. linking said S1 strand and said S2 strand with a linker at one or both ends of the dsRNA, such that a dsRNA is formed.

261. (New): An isolated oligoribonucleotide consisting of:

two RNA strands which are fully complementary to each other (dsRNA), a linker between the two RNA strands, and a 3' overhang,

wherein the dsRNA is not more than 49 nucleotides in length,

wherein one strand of the dsRNA is fully complementary to an RNA transcript of a mammalian target gene,

wherein the oligoribonucleotide specifically inhibits the expression of said mammalian target gene,

wherein said oligoribonucleotide is synthesized according to the following method steps:

a. synthesising an oligoribonucleotide strand which comprises a nucleic acid sequence with two non-adjacent self-complementary regions, each of said self-complementary regions being not more than 49 nucleotides in length,

b. annealing said two self-complementary regions under conditions that allow the two self-complementary regions to form an intrastrand double stranded structure,

c. using RNase to digest said interstrand double stranded structure formed in step b.

262. (New): The method of any one of claims 257, 258, 259, 260 or 261, wherein said RNase is selected from one or more of the group consisting of RNase A, RNase T1 and RNase H.